

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

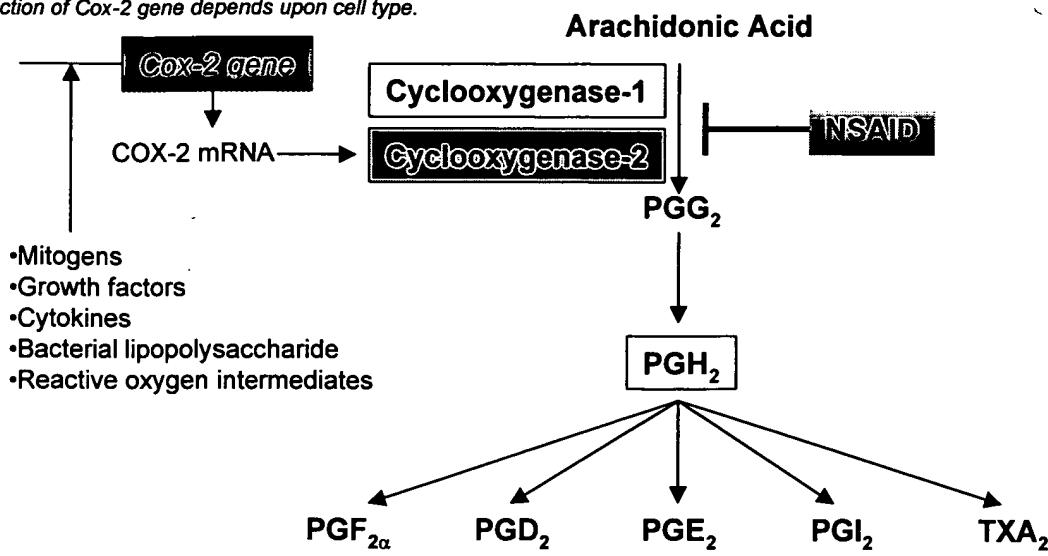
Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

Induction of Cox-2 gene depends upon cell type.



*Array of eicosanoids produced depends upon cell type.
Cellular response is a function of intracellular and extracellular receptors.*

Figure 1

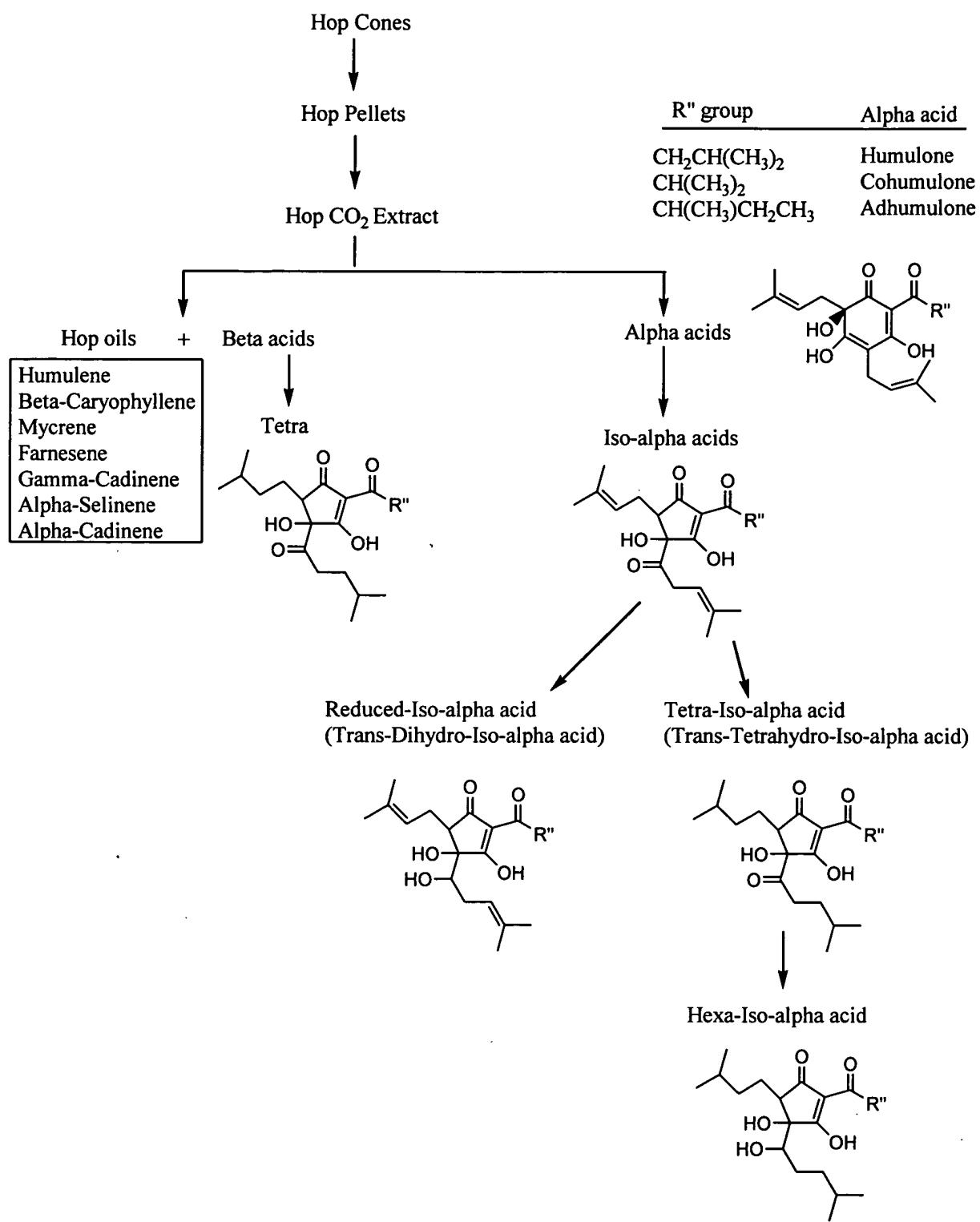


Figure 2

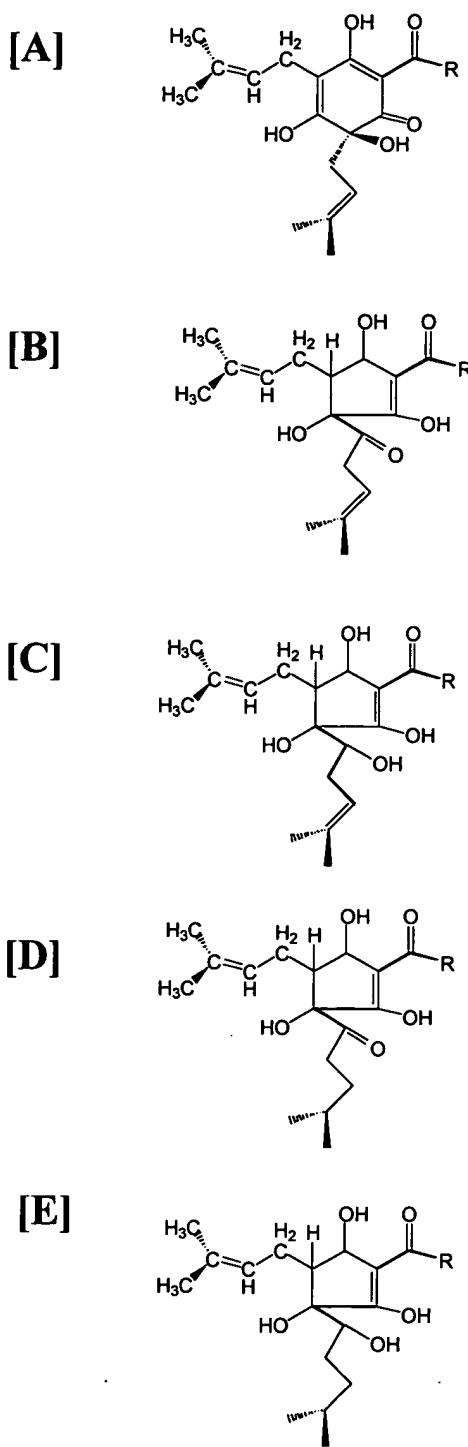
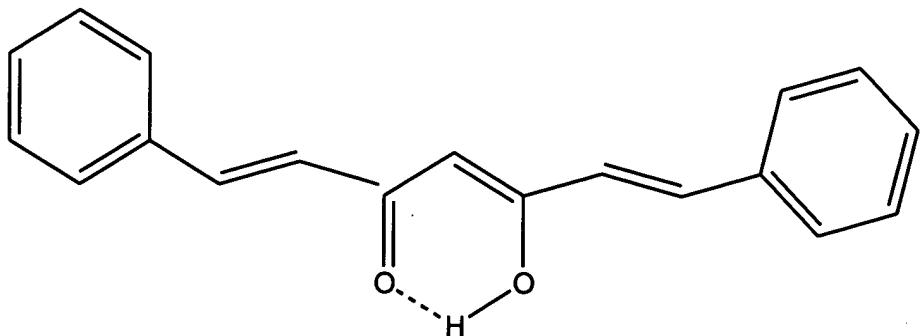
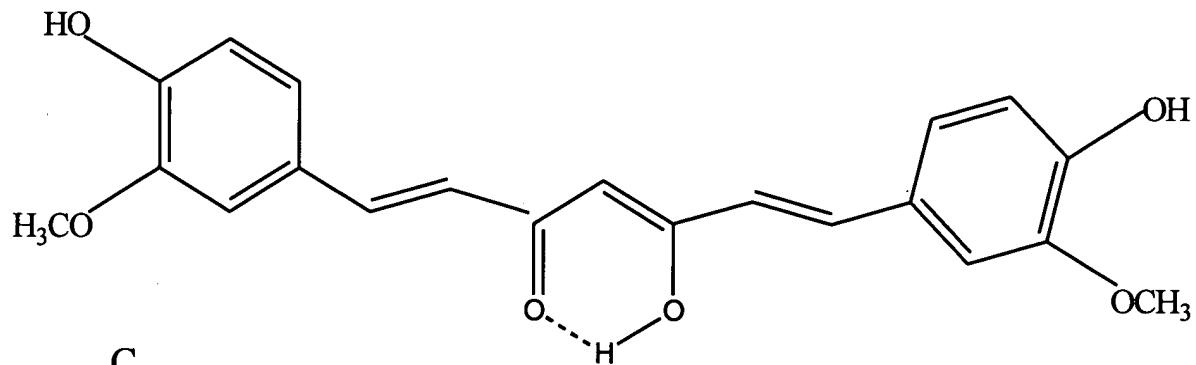


Figure 3

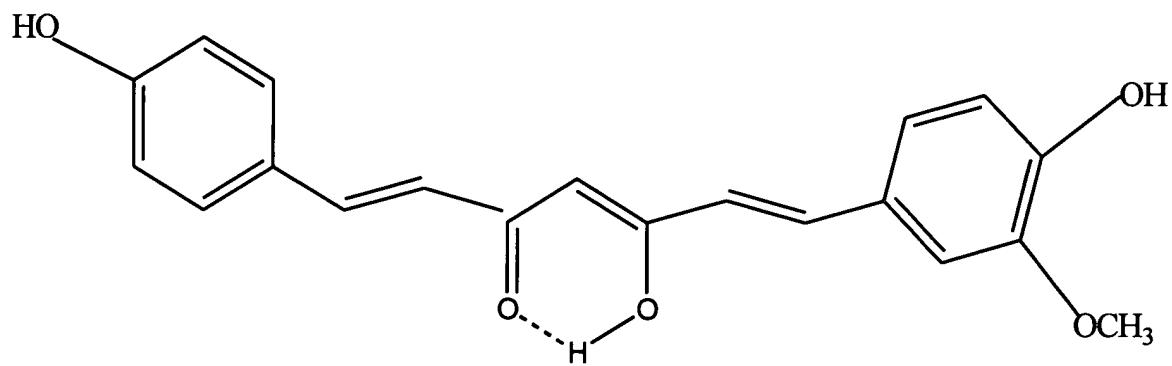
A



B

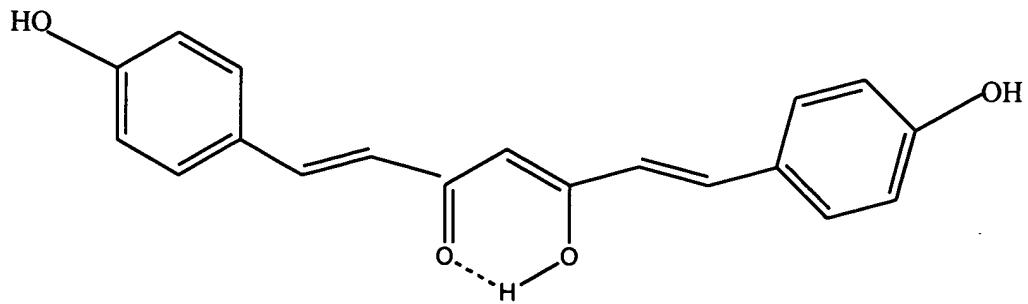


C

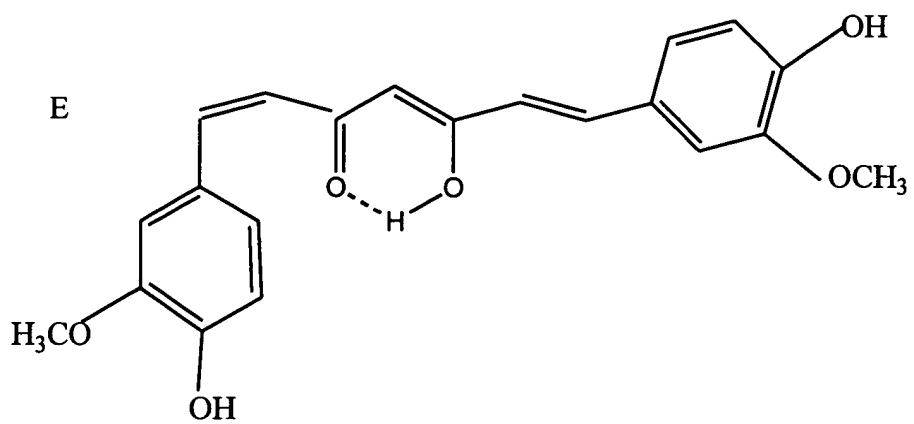


Figures 4 A-C

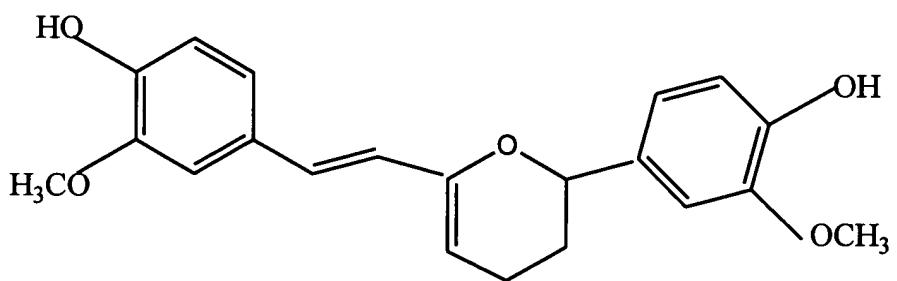
D



E

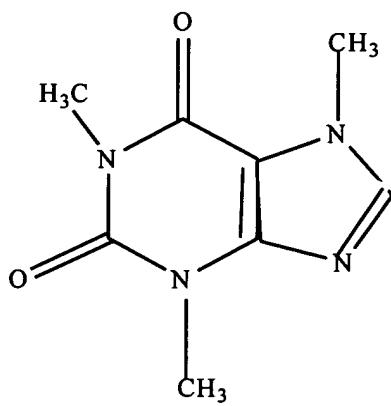


F

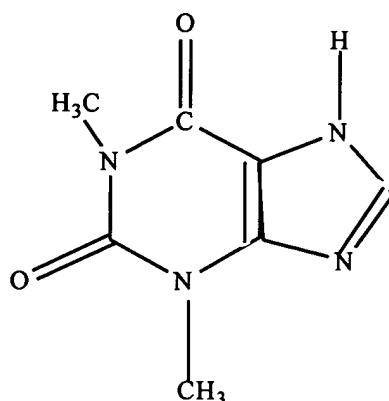


Figures 4 D-F

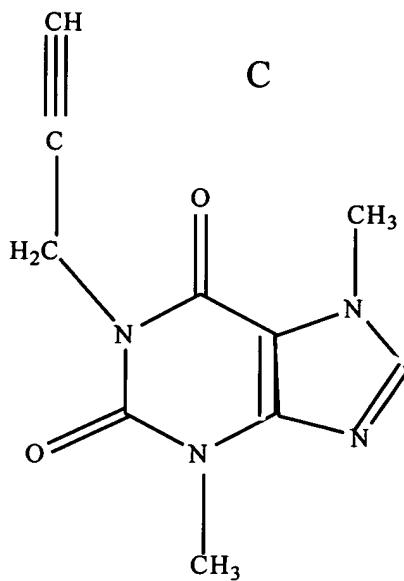
A



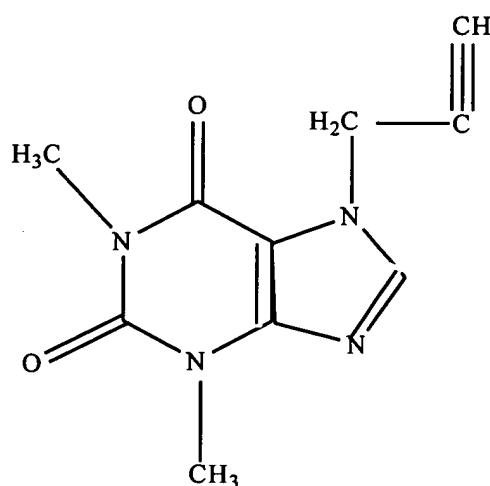
B



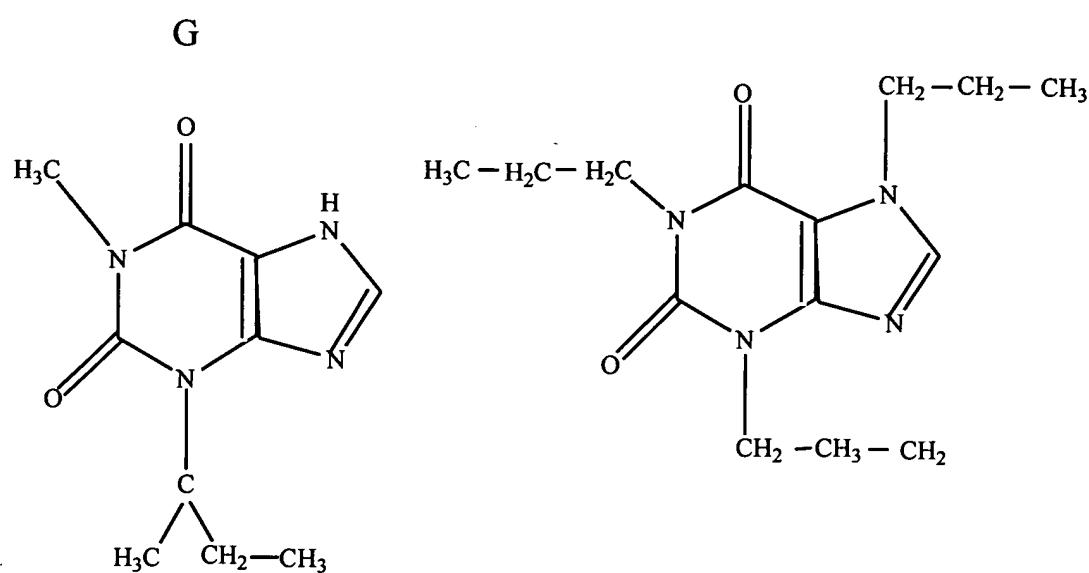
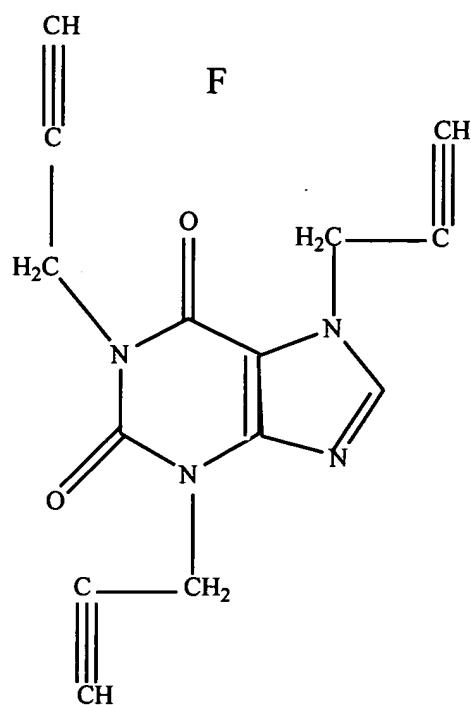
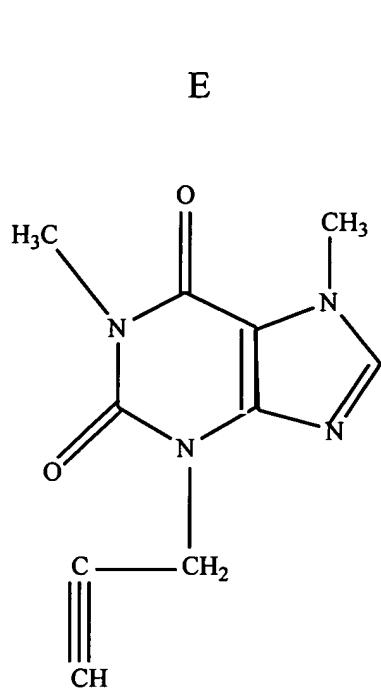
C



D

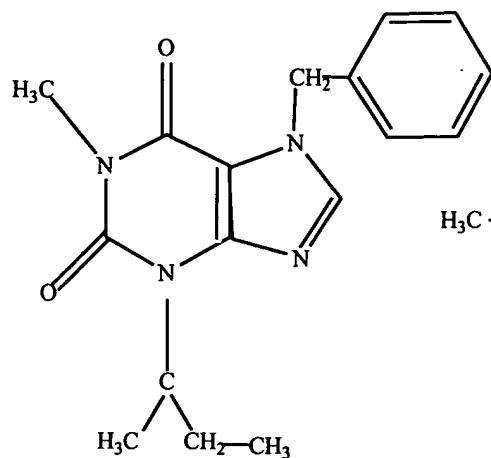


Figures 5 A-D

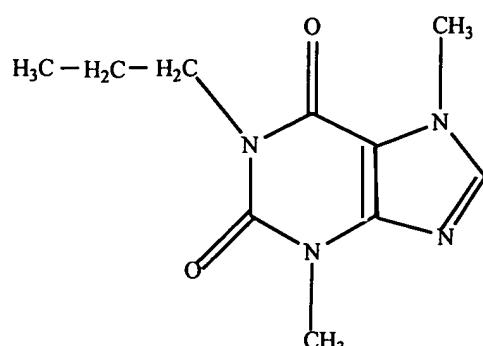


Figures 5 E-H

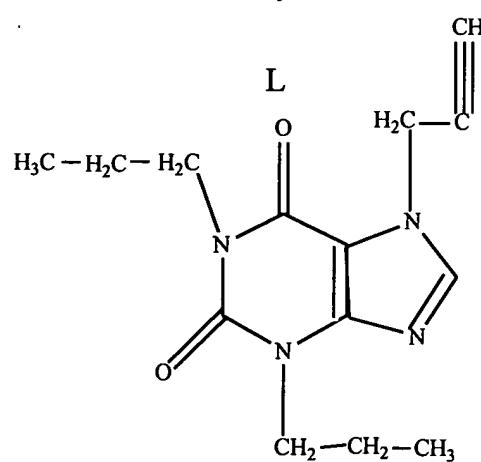
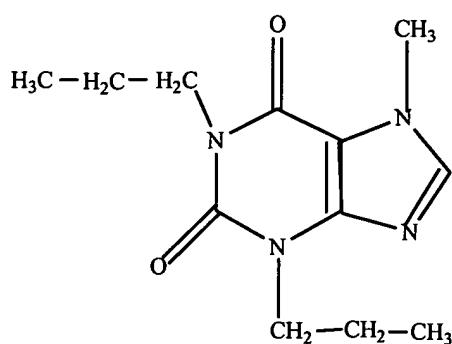
I



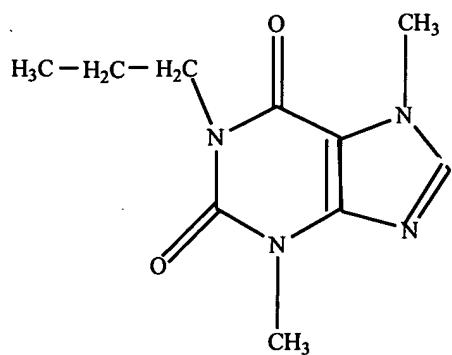
J



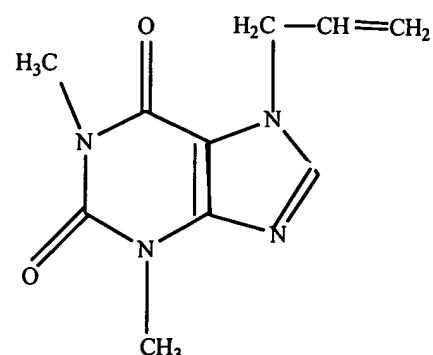
K



M



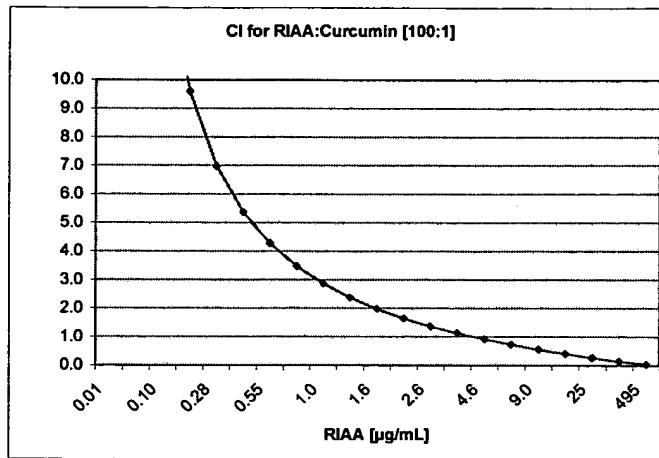
N



Figures 5I-N

RIAA:Curcumin [100:1]

Fa	CI	RIAA [μ g/mL]	Curcumin [μ g/mL]
0.02	68.336	0.01	0.000
0.05	28.842	0.04	0.000
0.10	14.609	0.10	0.001
0.15	9.589	0.18	0.002
0.20	6.984	0.28	0.003
0.25	5.376	0.40	0.004
0.30	4.277	0.55	0.006
0.35	3.475	0.73	0.007
0.40	2.862	1.0	0.010
0.45	2.375	1.2	0.012
0.50	1.979	1.6	0.016
0.55	1.649	2.0	0.020
0.60	1.369	2.6	0.026
0.65	1.127	3.4	0.034
0.70	0.916	4.6	0.046
0.75	0.729	6.3	0.063
0.80	0.562	9.0	0.090
0.85	0.409	14	0.139
0.90	0.269	25	0.247
0.95	0.137	63	0.629
1.00	0.031	495	4.950

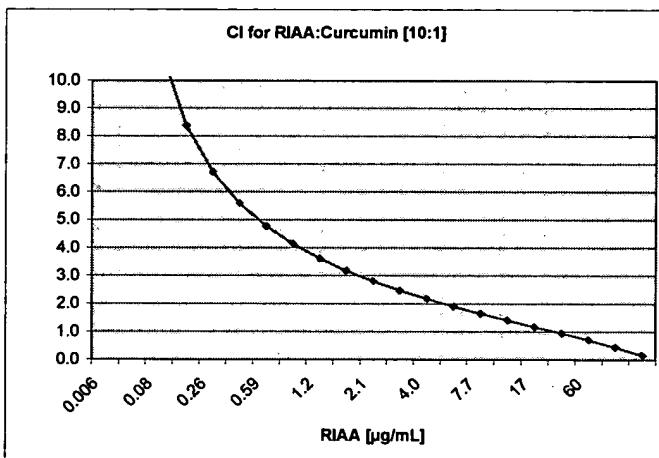


Shaded area represents region of synergy

Figure 6A

RIAA:Curcumin [10:1]

Fa	CI	RIAA [μ g/mL]	Curcumin [μ g/mL]
0.02	33.103	0.006	0.001
0.05	18.074	0.025	0.002
0.10	11.23	0.08	0.008
0.15	8.371	0.15	0.015
0.20	6.713	0.26	0.026
0.25	5.596	0.40	0.040
0.30	4.774	0.59	0.059
0.35	4.134	0.8	0.084
0.40	3.614	1.2	0.116
0.45	3.177	1.6	0.158
0.50	2.801	2.1	0.214
0.55	2.471	2.9	0.290
0.60	2.174	4.0	0.395
0.65	1.902	5.5	0.546
0.70	1.650	7.7	0.772
0.75	1.412	11	1.100
0.80	1.182	17	1.700
0.85	0.954	30	3.000
0.90	0.718	60	6.000
0.95	0.457	186	18.600
1.00	0.172	2266	228.600

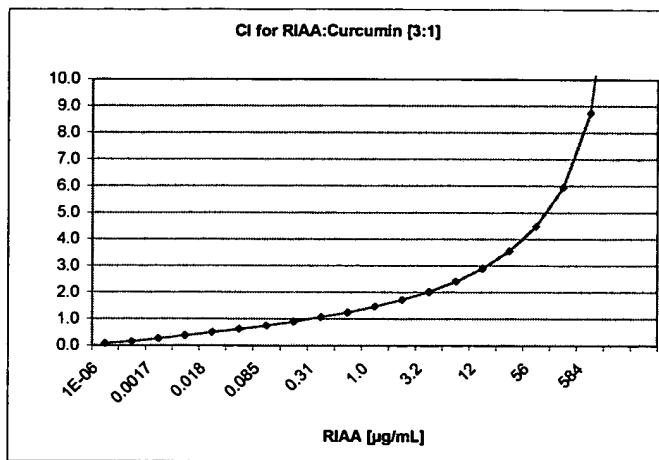


Shaded area represents region of synergy

Figure 6B

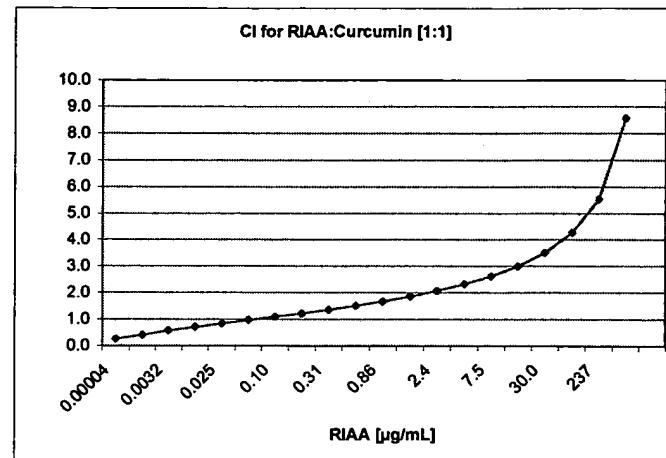
RIAA:Curcumin [3:1]

Fa	CI	RIAA [μ g/mL]	4708 [μ g/mL]
0.02	0.073	0.000001	0.000
0.05	0.150	0.00020	0.000
0.10	0.268	0.0017	0.000
0.15	0.380	0.0070	0.002
0.20	0.497	0.018	0.004
0.25	0.622	0.041	0.010
0.30	0.756	0.085	0.021
0.35	0.904	0.17	0.041
0.40	1.069	0.31	0.077
0.45	1.256	0.56	0.14
0.50	1.472	1.0	0.25
0.55	1.726	1.8	0.45
0.60	2.031	3.2	0.81
0.65	2.410	6.0	1.5
0.70	2.894	12	2.9
0.75	3.546	24	6.0
0.80	4.479	56	14
0.85	5.957	153	38
0.90	8.732	584	146
0.95	16	5095	1274
1.00			



RIAA:Curcumin [1:1]

Fa	CI	RIAA [μ g/mL]	Curcumin [μ g/mL]
0.02	0.267	0.00004	0.00004
0.05	0.408	0.00047	0.00047
0.10	0.575	0.0032	0.0032
0.15	0.715	0.010	0.010
0.20	0.844	0.025	0.025
0.25	0.971	0.052	0.052
0.30	1.098	0.10	0.10
0.35	1.230	0.18	0.177
0.40	1.369	0.31	0.307
0.45	1.518	0.52	0.517
0.50	1.683	0.86	0.864
0.55	1.868	1.4	1.440
0.60	2.077	2.4	2.435
0.65	2.324	4.2	4.200
0.70	2.625	7.5	7.530
0.75	3.006	14.0	14.000
0.80	3.518	30.0	30.000
0.85	4.268	73	73.000
0.90	5.546	237	237.000
0.95	8.569	1600	1600.000
1.00			

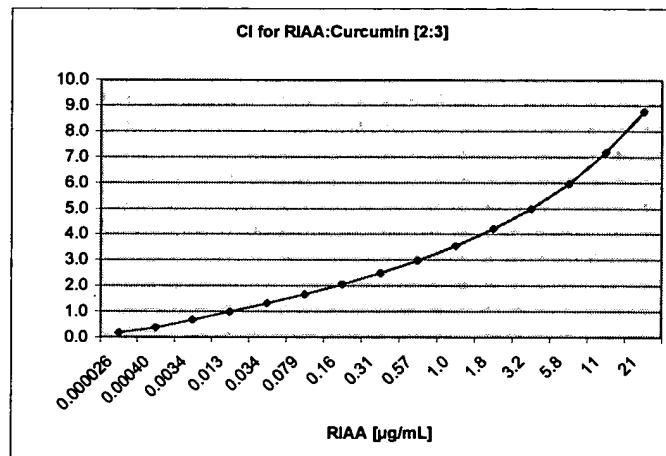


Shaded area represents region of synergy

Figure 6E

RIAA:Curcumin [2:3]

Fa	CI	RIAA [μ g/mL]	Curcumin [μ g/mL]
0.02	0.181	0.000026	0.00004
0.05	0.377	0.000040	0.00007
0.10	0.682	0.0034	0.0056
0.15	0.991	0.013	0.021
0.20	1.317	0.034	0.057
0.25	1.669	0.079	0.13
0.30	2.056	0.16	0.27
0.35	2.489	0.31	0.52
0.40	2.979	0.57	0.95
0.45	3.544	1.0	1.7
0.50	4.206	1.8	3.0
0.55	4.998	3.2	5.4
0.60	5.965	5.8	9.7
0.65	7.183	11	18
0.70	8.773	21	35
0.75	19.951	43	72
0.80			
0.85			
0.90			
0.95			
1.00			

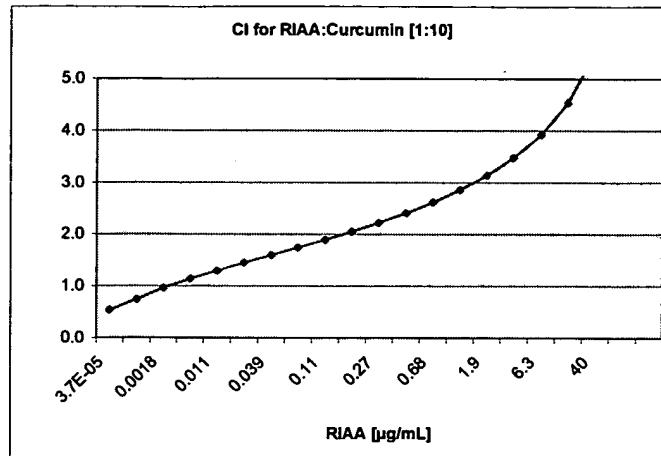


Shaded area represents region of synergy

Figure 6F

RIAA:Curcumin [1:10]

Fa	CI	RIAA [µg/mL]	Curcumin [µg/mL]
0.02	0.539	0.000037	0.00037
0.05	0.739	0.00032	0.0032
0.10	0.962	0.0018	0.018
0.15	1.140	0.0051	0.051
0.20	1.298	0.011	0.11
0.25	1.449	0.022	0.22
0.30	1.596	0.039	0.39
0.35	1.744	0.07	0.65
0.40	1.896	0.11	1.1
0.45	2.056	0.17	1.7
0.50	2.227	0.27	2.7
0.55	2.414	0.42	4.2
0.60	2.622	0.68	6.8
0.65	2.860	1.1	11
0.70	3.140	1.9	19
0.75	3.482	3.3	33
0.80	3.923	6.3	63
0.85	4.538	14	140
0.90	5.514	40	400
0.95			
1.00			

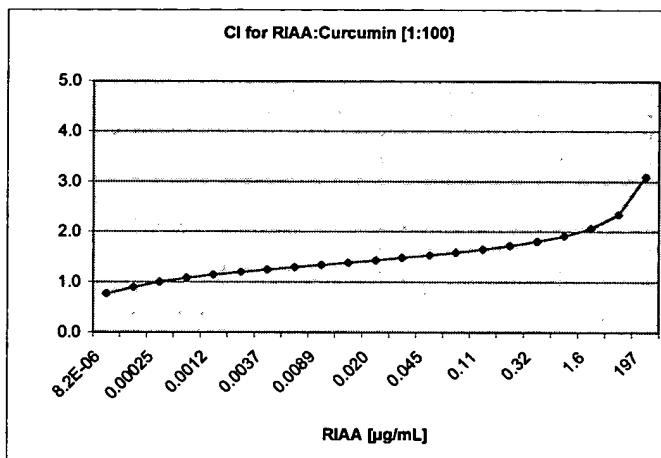


Shaded area represents region of synergy

Figure 6G

RIAA:Curcumin [1:100]

Fa	CI	RIAA [µg/mL]	Curcumin [µg/mL]
0.02	0.773	0.0000682	0.00082
0.05	0.894	0.000055	0.0055
0.10	1.006	0.00025	0.025
0.15	1.083	0.00062	0.062
0.20	1.145	0.0012	0.12
0.25	1.200	0.0022	0.22
0.30	1.250	0.0037	0.37
0.35	1.297	0.0058	0.58
0.40	1.344	0.0089	0.89
0.45	1.389	0.013	1.3
0.50	1.436	0.020	2.0
0.55	1.484	0.030	3.0
0.60	1.536	0.045	4.5
0.65	1.591	0.069	6.9
0.70	1.652	0.11	11
0.75	1.723	0.18	18
0.80	1.807	0.32	32
0.85	1.916	0.64	64
0.90	2.070	1.6	160
0.95	2.347	7.2	720
1.00	3.1	197	19700



Shaded area represents region of synergy

Figure 6H

RIAA:Caffeine [100:1]

Fa	CI	RIAA [μ g/mL]	Caffeine [μ g/mL]
0.02	483000	0.010	0.000
0.05	23100	0.039	0.000
0.10	2104	0.11	0.0011
0.15	477	0.21	0.0021
0.20	156	0.34	0.0034
0.25	62	0.51	0.0051
0.30	28	0.72	0.0072
0.35	13	0.98	0.010
0.40	6.715	1.3	0.013
0.45	3.481	1.8	0.018
0.50	1.829	2.3	0.023
0.55	0.961	3.1	0.031
0.60	0.498	4.1	0.041
0.65	0.251	5.5	0.055
0.70	0.121	7.5	0.075
0.75	0.054	11	0.11
0.80	0.021	18	0.16
0.85	0.007	28	0.26
0.90	0.002	49	0.49
0.95	0.000	138	1.4
1.00	0.000	1360	14

Shaded area represents region of synergy

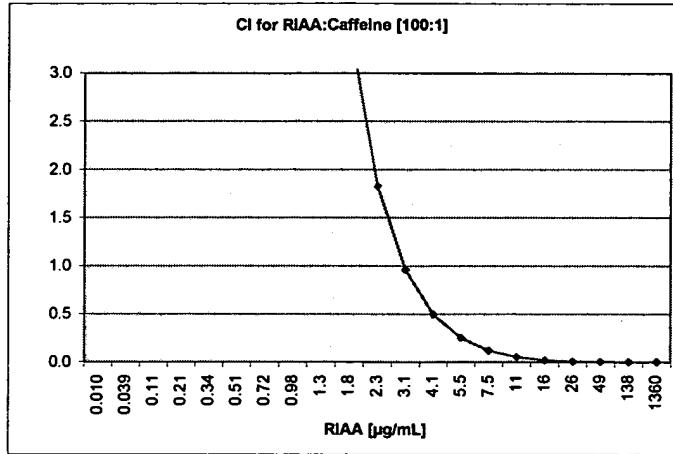


Figure 7A

RIAA:Caffeine [10:1]

Fa	CI	RIAA [μ g/mL]	Caffeine [μ g/mL]
0.02	25	0.00000054	0.000000
0.05	14	0.0000023	0.000002
0.10	8.673	0.00005	0.000045
0.15	6.514	0.0029	0.00029
0.20	5.252	0.011	0.0011
0.25	4.396	0.036	0.0036
0.30	3.784	0.097	0.010
0.35	3.270	0.24	0.024
0.40	2.866	0.56	0.056
0.45	2.527	1.3	0.13
0.50	2.233	2.8	0.28
0.55	1.974	6.3	0.63
0.60	1.742	14.0	1.4
0.65	1.529	33.0	3.3
0.70	1.330	82.0	8.2
0.75	1.142	222	22
0.80	0.961	697	70
0.85	0.781	2787	279
0.90	0.596	17533	1753
0.95	0.393	341940	34194
1.00	0.195	242070000	

Shaded area represents region of synergy

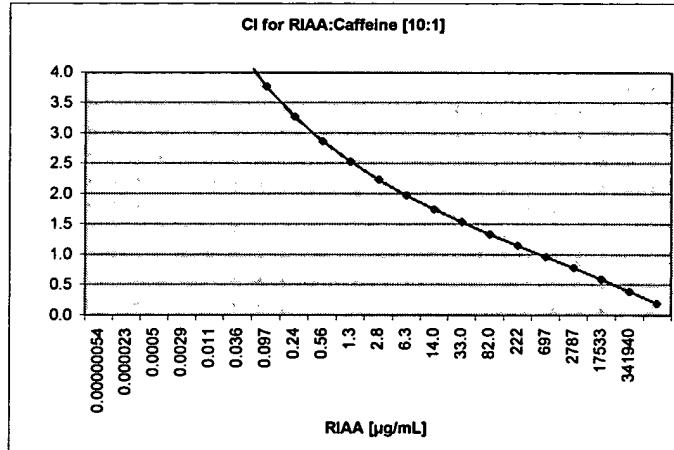
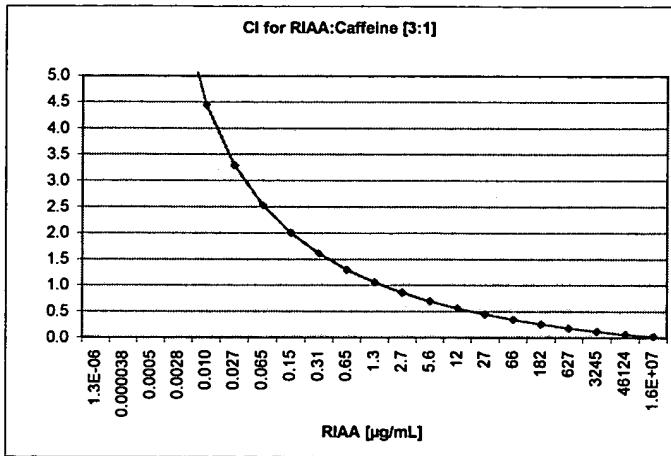


Figure 7B

RIAA:Caffeine [3:1]

Fa	CI	RIAA [μ g/mL]	Caffeine [μ g/mL]
0.02	60	0.0000013	0.000000
0.05	22.000	0.000038	0.000010
0.10	10.324	0.0005	0.000
0.15	6.380	0.0028	0.001
0.20	4.442	0.010	0.002
0.25	3.296	0.027	0.007
0.30	2.540	0.065	0.018
0.35	2.006	0.15	0.037
0.40	1.609	0.31	0.078
0.45	1.303	0.65	0.18
0.50	1.060	1.3	0.33
0.55	0.863	2.7	0.67
0.60	0.700	5.6	1.4
0.65	0.564	12	3.0
0.70	0.448	27	6.8
0.75	0.348	66	17
0.80	0.262	182	48
0.85	0.187	627	157
0.90	0.121	3245	811
0.95	0.084	46124	11531
1.00	0.023	18236000	

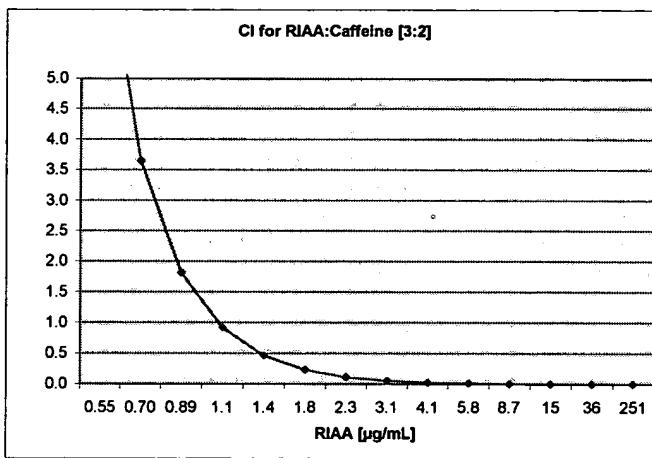


Shaded area represents region of synergy

Figure 7C

RIAA:Caffeine [3:2]

Fa	CI	RIAA [μ g/mL]	Caffeine [μ g/mL]
0.02	538000	0.012	0.005
0.05	21100	0.036	0.014
0.10	1640	0.086	0.034
0.15	337	0.15	0.059
0.20	103	0.22	0.089
0.25	39	0.31	0.124
0.30	16	0.42	0.167
0.35	7.534	0.55	0.218
0.40	3.645	0.70	0.281
0.45	1.818	0.89	0.357
0.50	0.921	1.1	0.452
0.55	0.467	1.4	0.572
0.60	0.234	1.8	0.728
0.65	0.114	2.3	0.920
0.70	0.053	3.1	1.240
0.75	0.0230	4.1	1.640
0.80	0.009	5.8	2.304
0.85	0.0030	8.7	3.472
0.90	0.0010	15	8.000
0.95	0.000062	36	14.400
1.00	0.0000058	251	100.400



Shaded area represents region of synergy

Figure 7D

RIAA:Caffeine [1:1]

Fa	CI	RIAA [μ g/mL]	Caffeine [μ g/mL]
0.02	0.176	0.0000000038	0.00000
0.05	0.209	0.00000035	0.00000
0.10	0.241	0.000013	0.00000
0.15	0.263	0.00011	0.00011
0.20	0.281	0.00060	0.00060
0.25	0.298	0.0024	0.0024
0.30	0.313	0.0079	0.0079
0.35	0.328	0.024	0.024
0.40	0.343	0.065	0.065
0.45	0.359	0.17	0.17
0.50	0.376	0.45	0.45
0.55	0.394	1.2	1.2
0.60	0.415	3.2	3.2
0.65	0.438	8.7	8.7
0.70	0.467	26	26
0.75	0.504	86	86
0.80	0.554	341	341
0.85	0.632	1805	1805
0.90	0.779	16460	16460
0.95	1.206	584650	584650
1.00	5.041	1556200000	1556200000

Shaded area represents region of synergy

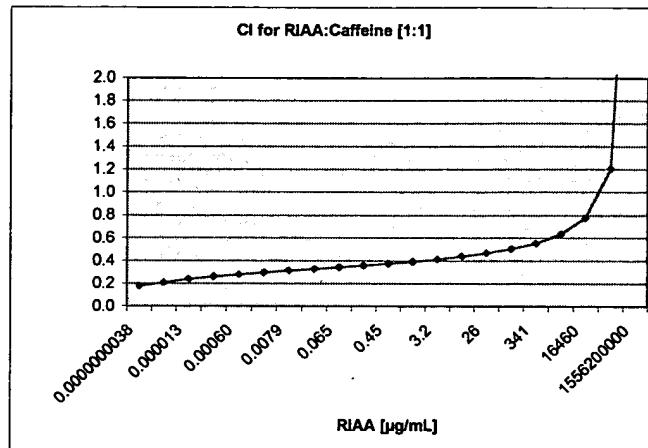


Figure 7E

RIAA:Caffeine [2:3]

Fa	CI	RIAA [μ g/mL]	Caffeine [μ g/mL]
0.02	0.001	$1.5 \cdot 10^{-11}$	$2.5 \cdot 10^{-11}$
0.05	0.003	$5.1 \cdot 10^{-9}$	$8.5 \cdot 10^{-9}$
0.10	0.010	$5.2 \cdot 10^{-7}$	$8.7 \cdot 10^{-7}$
0.15	0.021	$9.1 \cdot 10^{-6}$	$15 \cdot 10^{-5}$
0.20	0.037	$7.8 \cdot 10^{-5}$	$13 \cdot 10^{-5}$
0.25	0.058	0.00046	0.00077
0.30	0.087	0.00217	0.0036
0.35	0.125	0.01	0.01
0.40	0.177	0.03	0.06
0.45	0.247	0.1	0.2
0.50	0.343	0.4	0.7
0.55	0.478	1.4	2.3
0.60	0.673	4.9	8.2
0.65	0.966	18	30
0.70	1.428	76	127
0.75	2.215	357	595
0.80	3.702	2105	3508
0.85	7.037	18069	30115
0.90			
0.95			
1.00			

Shaded area represents region of synergy

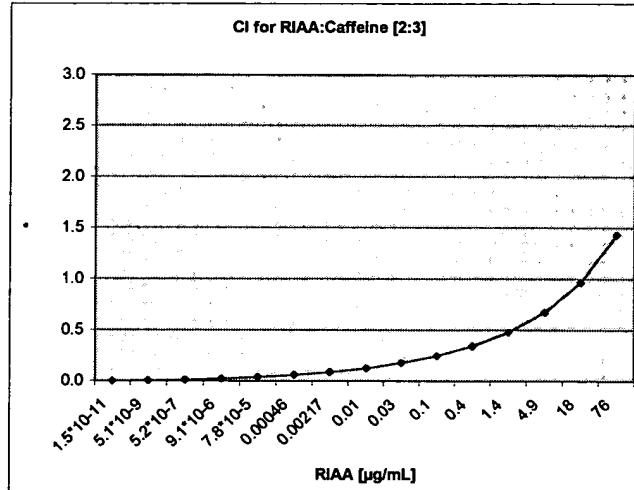
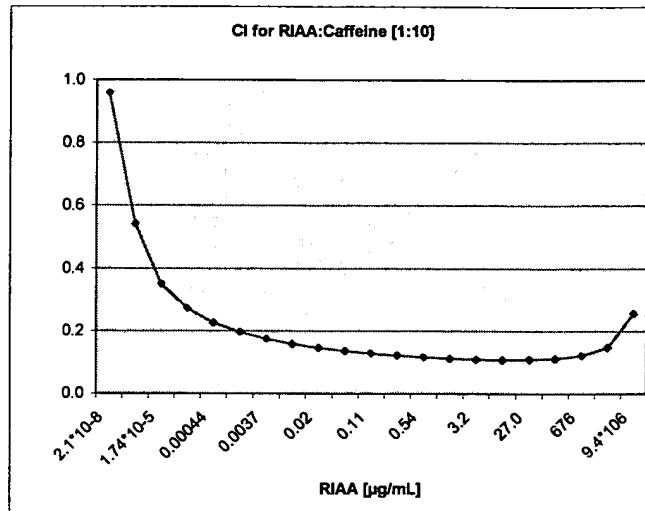


Figure 7F

RIAA:Caffeine [1:10]

Fa	CI	RIAA [μ g/mL]	Caffeine [μ g/mL]
0.02	0.958	2.1×10^{-3}	2.1×10^{-7}
0.05	0.542	8.9×10^{-7}	8.9×10^{-6}
0.10	0.351	1.74×10^{-5}	1.74×10^{-4}
0.15	0.272	0.00011	0.0011
0.20	0.227	0.00044	0.0044
0.25	0.197	0.0014	0.014
0.30	0.175	0.0037	0.037
0.35	0.159	0.01	0.09
0.40	0.147	0.02	0.2
0.45	0.137	0.05	0.5
0.50	0.128	0.11	1.1
0.55	0.122	0.24	2.4
0.60	0.117	0.54	5.4
0.65	0.113	1.3	13
0.70	0.110	3.2	32
0.75	0.109	8.6	86
0.80	0.110	27.0	270
0.85	0.113	107	1070
0.90	0.122	676	6760
0.95	0.148	13202	132020.000
1.00	0.258	9.4×10^{-6}	9.4×10^{-7}

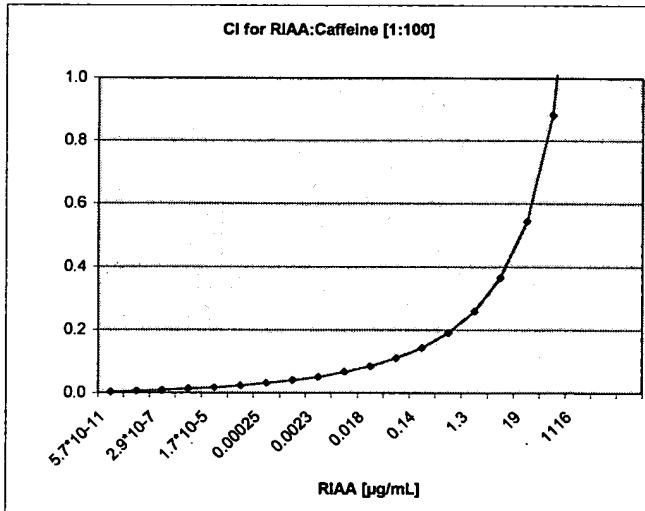


Shaded area represents region of synergy

Figure 7G

RIAA:Caffeine [1:100]

Fa	CI	RIAA [μ g/mL]	Caffeine [μ g/mL]
0.02	0.003	5.7×10^{-11}	5.7×10^{-9}
0.05	0.005	6.7×10^{-9}	6.7×10^{-7}
0.10	0.008	2.9×10^{-7}	2.9×10^{-5}
0.15	0.013	2.9×10^{-6}	2.9×10^{-4}
0.20	0.017	1.7×10^{-5}	1.7×10^{-3}
0.25	0.023	7.1×10^{-6}	7.1×10^{-3}
0.30	0.031	0.00025	0.025
0.35	0.040	0.0008	0.08
0.40	0.051	0.0023	0.23
0.45	0.066	0.0065	0.65
0.50	0.085	0.018	1.8
0.55	0.110	0.049	4.9
0.60	0.143	0.14	13.7
0.65	0.190	0.40	40.1
0.70	0.259	1.3	126
0.75	0.365	4.5	446
0.80	0.543	19	1900
0.85	0.882	109	10900
0.90	1.693	1116	111600
0.95		47705	4770500
1.00			



Shaded area represents region of synergy

Figure 7H